

Sodium

SECTION 1 – PRODUCT AND COMPANY IDENTIFICATION

Product Identification: Sodium
Ref No. 0140, 0140-050, etc.

Test kit contains Sodium Color Reagent, TCA Precipitating Reagent, and Sodium Standard.

Company Identification: Stanbio Laboratory
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Boerne, TX 78006

Telephone Number: (830) 249-0772
Website: <http://www.stanbio.com>

SECTION 2 – HAZARDS IDENTIFICATION

Routes of Exposure: Only when used as directed.

Classification system: In compliance with OSHA's Hazard Communication Standard (29CFR 1910.1200), a chemical mixture is considered hazardous if it contains 1.0% or more of a hazardous compound or 0.1% or more of a carcinogen. The product contains hazardous material(s) in excess of these amounts; therefore, precautions adequate for the pure form of the material(s) are presented here.

National Fire Protection Association (NFPA) ratings (scale 0-4):

Health=0
Fire=0
Reactivity=0

Hazard Overview

Health: Minimal risk if used as directed.

Fire: Not considered a fire hazard.

Reactivity: Sodium Reagent contains Ethanol 95%, Zinc Acetate, Uranyl Acetate, and Trichloroacetic Acid. Minimal risk.

Special Hazards:

Ethanol 95%: Flammable. Dangerous fire hazard when exposed to heat or flame. Above flash point, vapor air mixtures are explosive.

Zinc Acetate: Negligible fire hazard when exposed to heat or flame. Not considered to be an explosion hazard.

Uranyl Acetate: Material may emit toxic and radioactive fumes if involved in a fire.

Trichloroacetic Acid: Negligible fire hazard when exposed to heat or flame. With thermal decomposition, products may include toxic fumes of phosgene, toxic and corrosive fumes of hydrogen chloride, toxic oxides of carbon and chloroform.

Carcinogenicity information

OSHA (Occupational Safety and Health Administration): None of the ingredients is listed.

NTP (National Toxicology Program): None of the ingredients is listed.

IARC (International Agency for Research on Cancer): None of the ingredients is listed.

SECTION 3 – PRODUCT COMPOSITION

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The test kit is composed of Sodium Color Reagent, TCA Precipitating Reagent, and Sodium Standard.

Sodium Color Reagent /0141 (The reagent contains by percentage the following amounts of chemicals)

<u>Chemical Name</u>	<u>CAS No.</u>	<u>Concentration</u>
Ethanol, 95%	64-17-5	33.3%
Zinc Acetate	5970-45-6	15.4%
Uranyl Acetate	6159-44-0	5.27%

TCA Precipitating Reagent /0142 (The reagent contains by percentage the following amounts of chemicals)

<u>Chemical Name</u>	<u>CAS No.</u>	<u>Concentration</u>
Trichloroacetic Acid	76-03-9	10.0%

Sodium Standard /0143 (The reagent contains by percentage the following amounts of chemicals)

<u>Chemical Name</u>	<u>CAS No.</u>	<u>Concentration</u>
None determined to be hazardous.		

SECTION 4 – FIRST AID MEASURES

Inhalation: Provide fresh air. Restore or support breathing. Maintain airway and blood pressure. Keep victim warm and quiet. Get medical attention immediately.

Eyes: Flush eyes, including under the eyelids, with water for 15 minutes. Do NOT allow victim to rub or keep eyes closed. For TCA Precipitating Reagent, continue irrigating with normal saline until the pH has returned to normal for 30-60 minutes. Cover with sterile bandages. For Sodium Color Reagent, wash eyes with large amounts for water for about 15 minutes. Following water treatment, provide an isotonic solution. Do not use eyebaths, rather provide a continuous and copious supply of fluid. Retain eye washings and dispose of properly. Get medical attention immediately.

Skin: Flush skin with water for 15 minutes. Wash affected area thoroughly with soap and water. Remove contaminated clothing and shoes. Get medical attention immediately.

Ingestion: For TCA Precipitating Reagent, do not use gastric lavage or emesis. Dilute the acid immediately by drinking large quantities of water or milk. If vomiting persists, administer fluids repeatedly. Ingested acid must be diluted approximately 100 fold to render it harmless to tissues. Maintain airway and treat for shock. If vomiting occurs, keep head below hips to help prevent aspiration. For ingestion of Sodium Color Reagent, normally chelating agents act on uranium, however, they should NOT be used because the increased migrant fraction leads through renal precipitation to a greater kidney burden than would be received if there were no treatment at all, there is thus the risk of serious toxic nephritis. In general, the mouth should be rinsed out immediately after the accident, care taken not to swallow the water used for this purpose. Vomiting should be induced. Get medical attention immediately.

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SECTION 5 – FIRE FIGHTING MEASURES

Suitable extinguishing agents:

Ethanol 95%- Dry chemical, foam or carbon dioxide. Use water spray to cool fire-exposed containers. Water may be used to flush spills away from exposures and to dilute spills to non-flammable mixtures.

Zinc Acetate- Use any means suitable for extinguishing surrounding fire.

Uranyl Acetate- Use dry chemical, carbon dioxide, water spray or regular foam. For larger fires, use water spray or fog to flooding amounts. Cool containers with flooding amounts of water and apply as far a distance as possible. Avoid breathing dusts or vapors.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Methods and material for containment and cleaning up: Soak up with absorbent materials such as sand, siliceous earth, acid- or universal binder. Store in special closed containers and dispose of according to ordinance. Wash spill area with plenty of water.

Do not allow to penetrate into soil, drains, sewage system, or surface water.

SECTION 7 – HANDLING AND STORAGE

Handling: Avoid contact with skin and eyes. Keep all containers, equipment and working place clean.

Storage: Keep containers tightly closed and at a temperature between 15-30°C. Do not freeze. Protect from heat and direct sunlight.

SECTION 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with Occupational Exposure Limits: The product does not contain any hazardous ingredients with occupational exposure limits established by OSHA, ACGIH, or NIOSH.

Exposure controls

Provide good ventilation and/or an exhaust system in the work area.

Personal Protection Equipment

Breathing equipment: Use adequate protection to prevent inhalation, or good ventilation in room.

Hand protection: Wear necessary gloves when handling.

Eye protection: Wear appropriate safety glasses or other protective eyewear.

Body protection: Wear apron, laboratory coat or appropriate protective clothing when handling.

General protective and hygienic measures: Always maintain good housekeeping. Do not eat, drink or store food and beverages in areas where chemicals are used. Wash hands before breaks and at the end of the work shift.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Form: Solid

Color: Not applicable

Odor: Not identified

Boiling point/Boiling range:

Ethanol 95% - 78°C/N/A

Zinc Acetate - Decomposes/N/A

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Uranyl Acetate - 275°C, decomposes/N/A

Trichloroacetic Acid - 388°C/N/A

Flash point:

Ethanol 95% - 13°C

Zinc Acetate - N/A

Uranyl Acetate - N/A

Trichloroacetic Acid - N/A

Auto igniting: Not self-igniting.

Density at 20°C (68°F): not applicable

Solubility in / Miscibility with Water: not applicable

PH-value at 20°C (68°F): not applicable

Water: not applicable

SECTION 10 – STABILITY AND REACTIVITY

Stability: Product is stable under normal storage conditions.

Reactivity: Protect against heat/sun rays. Avoid strong bases as possibility for violent reactions exist. Avoid exposure to copper and dimethylsulfoxide, as an intense exothermic reaction will occur.

SECTION 11 – TOXICOLOGICAL INFORMATION

LD50/50LC values for hazardous ingredients per OSHA criteria:

Ingredients (100% pure substance/s)

Ethanol 95% - LD50 (oral rat): *Threshold limit:* 50 ppm TWA, *Carcinogen:* No.

Zinc Acetate - LD50 (oral rat): 2460 mg/kg, *Threshold limit:* None established, *Carcinogen:* No.

Uranyl Acetate - LD50 (oral rat): 400 mg/kg, *Threshold limit:* 0.2 mg/m³ TWA, *Carcinogen:* No.

Trichloroacetic Acid - LD50 (oral rat): 400 mg/kg, *Threshold limit:* 7 mg/m³ TWA, *Carcinogen:* No.

Primary toxicological effects of the final product

Skin irritation:

Sodium Chloride- possible irritation to skin.

Sodium Azide- causes irritation, redness, and pain.

Glycine- symptoms none identified.

Eye irritation: Sodium Chloride, Sodium Azide contact with eyes can be irritating. Contact with eyes causes irritation, redness, pain and blurred vision. Glycine no symptoms identified.

Sensitization: No sensitizing effects known.

Target organs/systems: Not determined

SECTION 12 – ECOLOGICAL INFORMATION

General notes: Reagents contain sodium azide as preservative. Accumulation of azide may react with copper or lead plumbing to form explosive compound on percussion. Flush drain with copious amounts of water to prevent build up.

SECTION 13 – DISPOSAL CONSIDERATIONS

Dispose of in a manner consistent with federal, state, and local regulations.

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SECTION 14 – TRANSPORT INFORMATION

Road: DOT class - Not restricted for transportation.

Sea: IMDG Class - Marine pollutant: No

Remarks: Not restricted for transportation.

Air: ICAO/IATA Class - Not restricted for transportation.

SECTION 15 – REGULATORY INFORMATION

SARA (Superfund Amendments and Reauthorization Act of 1986 – USA):

Section 302/304 (40CFR355.40): The product does not contain listed substances.

Section 313 (40CFR372.65): The product does not contain listed substances.

California Proposition 65 (USA)

Chemicals known to cause cancer: The product does not contain listed substances.

Chemicals known to cause female reproductive toxicity: None of the ingredients is listed.

Chemicals known to cause male reproductive toxicity: None of the ingredients is listed.

Chemicals known to cause developmental reproductive toxicity: None of the ingredients is listed.

Markings according to European guidelines: observe the general safety regulations when handling chemicals. The product does not require any hazard warnings according the respective European Community (EC) Directives.

SECTION 16 – OTHER INFORMATION

The information contained in this SDS is believed to be accurate and represents the best information currently available. Stanbio Laboratory makes no warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should determine suitability of the information contained in SDS for their particular purpose.

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